



OBSERVATIONS

14

ON THE

PROBABLE CAUSES OF RABIES,

OR

MADNESS,

IN

THE DOG,

AND VARIOUS OTHER DOMESTIC ANIMALS.

Read at The London Veterinary Medical Society,
On WEDNESDAY Evening, OCTOBER 6, 1830.

By HENRY WILLIAM DEWHURST, Esq.,

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“ It is utterly impossible for a practitioner to adopt any scientific method of treatment for a disease, unless its causes are discovered.”

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TO
JAMES SAMUEL LOMAX, Esq.,
OF
BROMPTON VILLA, OLD BROMPTON,
THE
FOLLOWING OBSERVATIONS
ARE RESPECTFULLY INSCRIBED,
AS A SMALL TOKEN OF ESTEEM,
BY HIS SINCERE FRIEND,
THE AUTHOR.

ROSVENOR TERRACE,
June 9, 1831.



PREFACE.

A desire to ascertain, if possible, the actual cause of *Rabies Canina*, produced the following paper, which I read at the opening of the last session of the London Veterinary Medical Society; and being still impressed with the necessity of the Profession obtaining this information, I now publish it, in order to obtain (if possible) the candid sentiments of my professional brethren respecting the accuracy of the hypothesis I entertain.

It was with pleasurable feelings that I perceived Mr. Alderman Wood introduce a Bill into the House of Commons, in order to prevent by proper means the spreading of Canine Madness;—its progress was impeded by his Majesty suddenly dissolving the late Parliament. I sincerely

hope, however, that the worthy Alderman will resume it during the ensuing session, and carry his philanthropic views into effect, and thus attempt the arrest of a disease which has proved the most dreadful scourge that ever afflicted man, as well as many of the most valuable of the inferior animals. Should he succeed in his benevolent intentions, he will justly be entitled to the everlasting gratitude of mankind.

OBSERVATIONS
ON
THE PROBABLE CAUSES OF RABIES,
IN THE
DOG AND OTHER ANIMALS.

LONDON VETERINARY MEDICAL SOCIETY, OCTOBER 6, 1830:

JOHN FIELD, Esq., V. S., in the Chair.

MR. PRESIDENT AND GENTLEMEN :

WHEN I consider the interesting and scientific manner, and the industry our worthy Secretary (Mr. Youatt) has exhibited for many years, in endeavouring to elucidate the pathology of *Rabies Canina*, together with the vast experience he has enjoyed, I cannot but confess I feel some diffidence in approaching a subject he has so ably handled, and which is of the utmost importance to mankind, inasmuch as, from its tremendous and horrifying effects, so many individuals have fallen victims to an aggravated species of the disease, which only exists in the human race, and is known by one great characteristic, viz. the unfortunate patient being liable to a great dread of water, nay, I may say of liquids generally: hence, this variety of the malady has justly been denominated by pathologists *hydrophobia*. I am aware of being unable to say, that I

have had much experience in the diseases in question ; but, from my having conceived some novel views of the probable causes by which this disease *may* arise in the dog, or many of the lower animals, I must crave your kind indulgence to hear the few observations I deem it my duty to make, and trust they may be so fortunate as to be deemed worthy of your consideration ; for I consider it our duty to promulgate any opinions we may form of the obscure causes of a disease, for the impartial discussion of our practical professional brethren, and thus promote the grand cause in which we are engaged, that is to say, the cultivation and diffusion of sound anatomical and pathological veterinary knowledge.

The symptoms, appearances after death, and methods of treatment, have so fully been considered by Mr. Youatt that I do not feel myself justified in occupying your attention with a description of them in detail, particularly for the two following reasons :—*First*, they must, I conceive be known to you, from a perusal of that gentleman's pamphlet,* and which is highly deserving your attention. *Secondly*, that I might perhaps be charged with plagiarism in a circumstance I would wish to avoid ; but I may cursorily allude to them as I proceed.

Unfortunately, the cause of rabies is as yet too obscure for us to found any solid theory on which we can ground any perfect plan of treatment. We cannot, from all our past information, but acknowledge that "its seat exists in the respiratory system of nerves, this is proved by the symptoms which take place ; that the morbid state of the

* Entitled " Canine Madness, comprising the symptoms, post mortem appearances, nature, origin, and preventive and curative treatment of Rabies in the Dog and other domestic animals ; by W. Youatt. V.S. F.L.S. Longman, 1830."

system is created by an inoculation of the virus upon an abraded or wounded surface ; and that this has its residence in the saliva of the animal by whom the disease was communicated."

Now, allowing all this, and which is fully borne out by past observations, here let me ask, does this point out the original cause of the malady ? I say no ; and with all due deference to Mr. Youatt, I have come to the following conclusions :—

First :—That sometimes it occurs spontaneously without inoculation.

Secondly :—That it may be *confounded* with inflammatory diseases, particularly of the viscera.

Thirdly :—That it may arise from a *non-gratification* of the animal passions, particularly sexual intercourse.

Our worthy Secretary inquires, in his *Remarks*, whether it ever occurs spontaneously : and if I recollect aright, he does not believe it does ever take place. But in this opinion I cannot coincide, for various reasons, which I shall mention, inasmuch as the relation of the following case may point out more information than bare unillustrated suppositions.

" An old lady kept for the preservation of her domicile, a small terrier dog, who was placed in a coal cellar at the bottom of the house, in the area, where he was scarcely ever relieved from his imprisonment, for a period of nearly five years. In all probability from some primary disorder of the digestive organs, severe symptoms arose, *bearing every mark of pure rabies*, and in this state he was destroyed. On my calling the next day, accidentally, to pay her a visit (having been in the habit of attending her professionally), and being informed of what had occurred, requested leave to examine the dog. It was sent to

me, and was examined by myself and my obstetrical friend Dr. Heydeloff of Edinburgh, who at that period was in London, in the presenee of several of my friends and pupils, when we found the intestinal, nay, to speak correctly, the whole alimentary canal, bearing all the appearances which are exhibited in cases of *rabies*: the dura mater and its continuation enveloping the medulla-spinalis were slightly vascular, and the whole substance of the brain was more loaded with blood than is usually perceived in a state of health. From the information I could gather respecting the previous symptoms, it confirms the view I have formed respecting its being a decided case of rabies; and this being the fact, I will ask, whether this is not a case of spontaneous disease?* and I am of opinion it is, and that it not unfrequently occurs in those animals who have been confined under similar circumstances to the one I have mentioned.

I shall not waste your time with any further observations on this head, being assured that it is worthy of some consideration; but at once proceed to my second division, wherein I have stated that *rabies* has been confounded with numerous inflammatory diseases, particularly those of the abdominal viscera.

It is hardly necessary for me to remark, that in this metropolis but little attention is paid by the middling classes of society, who retain dogs in their service for divers purposes; but unfortunately these animals are too often afflicted with disease, without the least attentio

* I have much pleasure in stating, that Messrs. Coleman, Brodie and Morgan, in their evidence before the Committee of the House of Commons, on Alderman Wood's Bill for the prevention of the *spreading of Canine Madness*, entirely coincide with me in opinion respecting the occasional spontaneous origin of rabies—a fact I was not acquainted with when I first entertained this opinion.—Vide Report, and Veterinarian for November 1830.

being paid to them by their owners, or any remedies administered for their relief. This arises from one or two causes, viz. ignorance or total neglect, or perhaps both.

From this circumstance, there is not the least doubt that numerous organic changes occur, with their corresponding train of symptoms, which in their aggravated form are too often mistaken by ignorant persons for the malady in question. I have frequently found, upon opening the bodies of dogs which have been brought to me by my friends or pupils for dissection, and which had been previously considered in perfect health, that the mucous membrane of the intestinal canal was more or less inflamed, the vessels of which were sometimes loaded with dark venous blood, appearing as if painted, and occasionally were seen large patches of ulceration.

I now call your attention to the following case:—

An eminent medical practitioner,* who then resided in the neighbourhood of Walworth, being what is termed rather a sporting character, kept a dog for the double purpose of guarding the house and becoming the companion of his gun during the shooting season; and frequently the animal was allowed to roam about the fields in the neighbourhood. One day, on the return of my friend from his professional avocations, he was informed by his domestics that his dog was in a state of madness, having been hunted home by numerous persons armed with pitchforks, &c. and was unapproachable, all the domestics being afraid to go near him on account of his fury. On going into the garden where the dog had his kennel, my friend found his eyes extremely bright and sparkling, his mouth foaming with saliva; he was lying in

* This gentleman is now dead, it was the talented late James Lamart, Esq.

the corner of his kennel, and extremely spiteful to all who came near him: these were the most prominent among other symptoms. My friend went into his surgery, and prepared a ball containing one drachm of calomel, and gave it to the animal: three hours afterwards four ounce of sulphate of magnesia, dissolved in some oatmeal gruel was given to the unfortunate creature, and notwithstanding several copious stools had taken place, the saline dose was repeated in three hours after the first. By this time great weariness was produced, and doses of gruel were frequently administered: the next day similar food, together with small doses of sulphate of magnesia, of about one ounce twice a day for two days, were given to him, when it was left off, and in a short time the dog was entire well. Now, in this case, there was not the least doubt that it was an aggravated state of intestinal inflammation which had been mistaken by a timid populace, and even by a truly scientific medical practitioner, for madness rabies. There is not the least doubt that numerous cases of inflammatory and neglected maladies may be confounded with this disease, or, what is not unlikely, it may degenerate into perfect rabies; and I am further of opinion, that it not unfrequently occurs from the circumstances I have already mentioned. Besides, there is not the least doubt that if a case was carefully watched, the ultimate symptoms would occasionally be found to bear some analogy to those of *pure rabies*, prior to mortification commencing.

The last head to which I shall draw your attention on the present occasion, is one which I believe has not engaged the attention either of human or veterinary pathologists, but which is one highly deserving of their attention.

We well know that throughout all classes of animals and plants, nay, in fact, all animated bodies possess pec-

ar organs necessary for the procreation of their species, with their corresponding series of functions.

At a certain period peculiar to every animal,* certain sires occur at stated seasons, wherein their sexual propensities must be gratified, and in some orders this takes place with the most unbounded fury; and in those cases where it happens that there are more males than females, violent and frequently fatal conflicts ensue; and there is at the least doubt that, in such as cannot (either from want of opportunity or confinement) gratify the sexual passions, rabies, or a disease approaching to it, actually takes place, and more or less becomes aggravated: this is stated to have occurred in the wolves and other animals of the Continent, and in the menageries, where animals are preserved and exhibited in a state directly contrary to their habits, climate, and freedom they enjoyed in their original states; where, from these circumstances, this passion is unable to be gratified, as was intended by the great author of nature, pure madness breaks out, and is only to be restrained in its intensity by means of violent purgatives and similar plans of treatment. A well known instance of this occurred in the celebrated elephant at Cross's menagerie, at the late Exeter 'Change, where, on account of the animal's unrestrained fury, he was compelled to be destroyed; and you also recollect, that at certain periods, when the sexual appetite became excited, the vascular system was compelled to be lowered by means of strong doses of saline medicine; and thus I am borne out in the position I have advanced; and there is not the least

*I mean, of course, the lower animals; for in the human female process of impregnation is capable of being effected at all periods of the year.

doubt that, had the dissection been minutely made with this idea in view, the whole vascular and nervous system would have been under great excitement, differing exceedingly from what would be perceived under other circumstances. As far as my own observations have gone, have rarely seen rabies occurring in the bitch,* but almost *invariably* in the dog. If other observers support the remark, can I not justly inquire, if it is not probable that this *may be one* of the exciting causes of rabies?

These, Mr. President, are the three points to which I wish to call the particular attention of yourself and the members of this Society, inasmuch as I conceive that a full and deliberate discussion on this important subject may tend, in the end, to afford some accurate information as to the proximate cause of the pathology of rabies in the different orders of animals, and thus be the means of ultimately leading to some sound plan of treatment to be adopted with both man and animals, and which, in the rapid strides that science is daily making in all its branches, I do not despair of, although I may not live to see it.

* On the evening I read this paper, on my road to the Society was informed by my valued and scientific friend, Mr. James Brodie of Camden Town, that he knew a bitch who at certain periods of the year was almost in a state of furor, owing to being deprived of sexual intercourse with the male; and as soon as any symptoms indicative of this condition appeared, her master purged her well with some medicines, and thus lowered the excitement.

† Mr. Brodie, in his evidence before the House of Commons Committee, states that "*whoever discovered a cure for hydrophobia would attain fame and fortune by his discovery.*" Now should such be fortune made by any individual, even though he be an unprofessional man, I sincerely hope he will not be hunted down by the profession for benefiting his fellow creatures, as was the case with a truly worthy, talented, honourable man, who having been successful in the relief of disease in many cases, has not only been the subject of two base prosecutions,

My object in this paper is not to communicate information (for that I confess I am unable to do, when compared to that which has been published by Mr. Youatt), but to elicit a discussion from men who (from their practising a distinct though equally important branch of the healing art to my own) have it more in their power than myself of instituting inquiries, whether or not the suppositions I have advanced in the course of these observations are correct or incorrect, and which I must observe can only be truly ascertained by the lynx-eyed observations of a scientific practitioner steadily devoted to his profession, and embracing every object that may occur in the practice of himself or his friends; and as numerous observations must occur in equine and canine pathology, I would take the liberty of suggesting that more attention should be paid to an examination of the brain, nervous, and vascular systems, than is generally done by veterinarians. I have now brought these remarks to a conclusion, and have to apologize, Mr. President, for the hasty and crude manner in which they have been put together; but not being aware it would fall so soon to my lot in having the honour to address you, I considered it my duty to offer them in their present form, rather than create a disappointment.

For a report of the excellent discussion that followed the perusal of the preceding paper, the reader is referred to that excellent journal, the "*Veterinarian*," for November, 1830.

through a venal hireling press, been disgracefully held up to scorn, obloquy, and ridicule; the public, however, now have their eyes open, and I am happy to say that the prejudice that was raised is now gradually dispersing, and many of those who were formerly against him, now believe him a truly persecuted and innocent man; and to the profession, I advise them to recollect, that "he who is without sin, should cast the first stone."

Observations on the imperfect Development of the Skeleton of Man, and particularly of the Cranium. By J. F. LOBSTEIN. Translated from his Traité d'Anatomie Pathologique, by H. W. DEWHURST, Esq. Surgeon, &c.

(Extracted from the Gazette of Health.)

THERE are numerous organs in the human body which remain stationary during their morbid progress, whilst the surrounding parts augment considerably in size, without our being enabled to perceive in them the characteristic symptoms of atrophy by which they are properly denominated.

To call the reader's attention to some striking examples, without reference to any one particular organ, we shall proceed to examine the several portions of the skeleton, comprising the head, chest, pelvis, and extremities.

We not unfrequently meet with the crania of some individuals which are considerably smaller than is found, under ordinary circumstances, in the greater number of persons. Notwithstanding, the thickness of the two tables of which it is composed are of the usual dimensions. From this it appears that there must have been originally some obstacle in the growth and general development of this part of the osseous system. Lobstein is of opinion, that this fault of formation in the cranium may have considerable influence on the functions of the cerebral viscous within. Reflection which experience confirms, clearly proves that the contracted sphere of the skull oftentimes coincides with a derangement of the mental faculties, or more properly speaking, creating a nullity of the intellectual functions.

Pinel * mentions a case of a girl of eleven years of age, who had been an idiot, in the most deplorable state, from her birth; her skull was one of the most remarkable in its conformation, in the diminutiveness of its dimensions. Lobstein examined a skull, preserved in the Museum of the Faculty of Medicine at Paris, which has an extreme flatness of forehead,† and a remarkable decrease in all its diameters; the superior part of the orbit is extremely hollowed in the interior of the skull, which was on a level with the cribriform process of the ethmoidal bone, and consequently occasioning a diminution of the facial angle, giving this skull a considerable resemblance to that of a monkey.

It is also the imperfect development of the skull, that creates a flattened shape of its various regions; as just stated, in the preceding remarks, that the flatness of the forehead ably accords with the want of intelligence which was so peculiar in the idiots above described. Lobstein presents several engravings, from crania, in the same collection, whose heads are completely flattened in the frontal region; and of one in particular, the individual was of a most detestable character.‡

The narrowness of the chest and pelvis arise likewise from an imperfect development of the particles of osseous matter; and the effects of this peculiar kind of conformation are pretty well known, inasmuch as the suspension of

* *Traité de la Manie*, 2e. edit. pp. 182—475.

† In all persons remarkable for a deficiency of intellect we generally find this species of forehead; in those having one finely elevated, or expanding, the individual is noted for the brilliancy of his mental and intellectual attainments.—D.

‡ These remarks form excellent illustrations in confirmation of the beautiful and accurate science of phrenology.—D.

the functions of the containing organs oftentimes takes place, and in the latter organ, difficult parturition is generally the consequence ; and thus, from an imperfect development of these organs, experience proves to us, that life is frequently shortened.

The growth of the extremities is frequently suspended from the same species of the imperfect osseous development, without a stoppage of the nutritive act, as is perceived by a mere reference to the state of those *foetuses*, who, from their birth, are placed within the denomination of dwarfs ; and this shortness of limb is found to be alike in the superior as in the inferior extremities.

FINIS.

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